

Subgroup Achievement and Gap Trends — South Carolina

K-12 enrollment — 701,749

The raw data used to develop these state profiles, including data for additional grade levels and years before 2002, can be found on the CEP Web site at www.cep-dc.org. Click on the link on the left for State Testing Data. Below the name of the report, click on the link for View State Profiles and Worksheets. Scroll down the page, and click on the Worksheet links for any state.

Subgroup Achievement Trends and Gap Trends — Key Findings

Summary

This year the Center on Education Policy analyzed data on the achievement of different groups of students in two distinct ways. First, we looked at grade 4 test results to determine whether the performance of various groups improved at three achievement levels—basic and above, proficient and above, and advanced. Second, we looked at gaps between these groups at the proficient level across three grades (grade 4, grade 8 in most cases, and a high school grade). These two types of analyses show whether elementary school achievement has generally gone up for different groups of students and whether achievement gaps at different grade levels have narrowed, widened, or stayed the same.

Overall, test score trends in South Carolina have gone in an upward direction, at all three achievement levels. There is a mixed picture on achievement gaps—they have tended to narrow at the high school grade but widen at the elementary school grade analyzed.

Subgroup trends by achievement level at grade 4

- **Main trend:** Most subgroups made gains in reading and math at three achievement levels—basic-and-above, proficient-and-above, and advanced. Specifically, 12 of the 15 trend lines analyzed across the three achievement levels in reading showed gains, as did 14 of 15 trend lines in math.

Gap trends at three grade levels

- **Main trend:** In most instances, gaps in the percentages of students scoring at the proficient level were mixed between African American or Latino students and white students, and between low-income and non-low-income students, at grades 4 and 8 and at the high school grade tested. Specifically, gaps widened between these groups of students at grade 4 in both reading and math but narrowed at the high school grade analyzed. Gaps were mixed in grade 8.

Data notes

- **Limited data:** Trends are limited to 2004–2008 for high school but are comparable from 2002-2008 for grades 4 and 8.

- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Asian American, and low-income students. The Native American subgroup is too small in South Carolina to yield reliable trend data. Trends for students with disabilities, English language learners, and male and female students have not been summarized because they will be discussed in separate reports.
- Grades analyzed: Analyses of subgroup trends by three achievement levels are limited to one elementary grade because of the massive amounts of data involved and because this is the pilot year of a process that CEP hopes to extend to the middle and high school levels in future years. Analyses of achievement gap trends cover three grade levels: grade 4, grade 8, and the high school grade tested for NCLB.

Data Limitations

Years of comparable percentage proficient data	2001 through 2008, grades 3 through 8 2004 through 2008, grade 10
Years of comparable mean scale score data	2001 through 2008, grades 3 through 8 2004 through 2008, grade 10
Disaggregated data for all subgroups and comparison groups	2002 through 2008, grades 4 and 8 2004 through 2008, grade 10

Test Characteristics

The characteristics highlighted below are for the state reading and mathematics tests used for accountability under the No Child Left Behind Act (NCLB).

Test(s) used for NCLB accountability	Palmetto Achievement Challenge Test (PACT), grades 3–8 High School Assessment Program (HSAP), grade 10 South Carolina Alternate Assessment (SC-Alt) for students with significant cognitive disabilities in grades 3–8 and 10
Grades tested for NCLB accountability	3–8, 10
State labels for achievement levels	SC uses four achievement levels: Below basic, Basic, Proficient, and Advanced. For our analyses we treated Basic as Basic, Proficient as Proficient, and Advanced as Advanced.
High school NCLB test also used as an exit exam?	Yes
First year test used	1999 PACT 2004 HSAP

Time of test administration	Spring (PACT) Fall and spring (HSAP, with summer retest)
Major changes in testing system (2002–present)	2004: HSAP introduced 2007: New alternate assessment (SC-Alt) introduced for students with significant cognitive disabilities, replaced previous alternate assessments

Achievement by Subgroup — Trends at the Elementary Level

Note: The tables in this profile of subgroup achievement and gap trends begin with table 7. Tables 1 through 6 can be found in the companion state profile of general achievement trends.

Table SC-7. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Reading

Subgroup	Reporting Year							Average Yearly Percentage Point Gain ¹
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced	2%	2%	3%	3%	5%	4%	5%	0.5
Proficient and Above	34%	33%	38%	36%	42%	42%	46%	2.0
Basic and Above	81%	76%	81%	80%	82%	83%	81%	0.1
White								
Advanced	4%	4%	4%	5%	7%	6%	7%	0.6
Proficient and Above	46%	45%	51%	48%	54%	55%	58%	2.0
Basic and Above	89%	86%	89%	88%	90%	90%	89%	0.0
African American								
Advanced	0%	1%	1%	1%	2%	1%	1%	0.1
Proficient and Above	17%	18%	22%	21%	24%	25%	28%	1.8
Basic and Above	70%	65%	71%	69%	71%	73%	70%	0.1
Latino								
Advanced	1%	1%	2%	1%	3%	2%	2%	0.2
Proficient and Above	25%	21%	25%	25%	29%	28%	33%	1.3
Basic and Above	76%	60%	67%	68%	69%	72%	71%	-0.7
Asian								
Advanced	6%	6%	6%	6%	13%	11%	14%	1.2
Proficient and Above	50%	50%	55%	55%	62%	62%	67%	2.9
Basic and Above	91%	85%	91%	88%	90%	92%	91%	0.0
Native American²								
Advanced	4%	0%	2%	0%	5%	3%	5%	0.1
Proficient and Above	29%	31%	31%	21%	39%	41%	41%	2.0
Basic and Above	76%	72%	80%	69%	78%	84%	80%	0.6

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 4% in 2002 to 7% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4th graders was 0.6 percentage points per year.

¹Averages are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table SC-8. Percentage of Grade 4 Students by Demographic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Reading

Subgroup	Reporting Year							Average Yearly Percentage Point Gain ¹
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced	2%	2%	3%	3%	5%	4%	5%	0.5
Proficient and Above	34%	33%	38%	36%	42%	42%	46%	2.0
Basic and Above	81%	76%	81%	80%	82%	83%	81%	0.1
Low-income students								
Advanced	1%	1%	1%	1%	2%	1%	1%	0.2
Proficient and Above	19%	19%	24%	23%	27%	27%	31%	2.0
Basic and Above	72%	66%	72%	71%	73%	75%	72%	0.1
Students with disabilities³								
Advanced	1%	1%	1%	1%	1%	1%	1%	-0.1
Proficient and Above	12%	13%	15%	14%	16%	14%	16%	0.2
Basic and Above	56%	50%	56%	51%	53%	50%	47%	-2.8
English language learners³								
Advanced	0%	0%	1%	1%	2%	2%	3%	0.1
Proficient and Above	13%	5%	13%	17%	25%	27%	33%	4.0
Basic and Above	55%	35%	53%	60%	63%	70%	69%	3.0
Female								
Advanced	3%	3%	4%	4%	7%	6%	7%	0.6
Proficient and Above	38%	38%	44%	42%	47%	47%	52%	2.2
Basic and Above	85%	81%	84%	84%	86%	87%	86%	0.1
Male								
Advanced	1%	1%	2%	2%	4%	3%	3%	0.3
Proficient and Above	29%	28%	33%	31%	37%	38%	40%	1.8
Basic and Above	77%	72%	77%	75%	78%	79%	76%	0.0

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test was 1% in 2002 and in 2008. During this period, the average yearly gain in the percentage advanced in reading for low-income 4th graders was 0.2 percentage points per year.

¹Averages are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups. Average yearly percentage point gains are based on 2006-2008 results.

Table SC-9. Percentages of Grade 4 Students by Racial or Ethnic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year							Average Yearly Percentage Point Gain ¹
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced	15%	14%	14%	14%	18%	20%	21%	0.9
Proficient and Above	36%	34%	36%	41%	42%	41%	42%	0.9
Basic and Above	75%	81%	80%	79%	78%	78%	79%	0.6
White								
Advanced	23%	21%	21%	21%	27%	29%	30%	1.2
Proficient and Above	50%	48%	49%	54%	56%	56%	56%	1.0
Basic and Above	87%	90%	90%	89%	88%	88%	89%	0.3
African American								
Advanced	5%	5%	5%	5%	6%	7%	7%	0.4
Proficient and Above	18%	17%	19%	22%	22%	22%	22%	0.7
Basic and Above	60%	70%	68%	66%	64%	65%	65%	0.8
Latino								
Advanced	13%	8%	7%	7%	9%	12%	13%	0.0
Proficient and Above	30%	25%	24%	29%	30%	30%	31%	0.2
Basic and Above	71%	70%	69%	69%	70%	70%	73%	0.3
Asian								
Advanced	37%	36%	35%	33%	37%	41%	44%	1.1
Proficient and Above	64%	62%	59%	64%	63%	66%	67%	0.7
Basic and Above	89%	91%	93%	90%	91%	91%	92%	0.4
Native American²								
Advanced	17%	11%	14%	7%	16%	17%	20%	0.4
Proficient and Above	35%	30%	29%	29%	40%	41%	40%	0.9
Basic and Above	75%	75%	83%	81%	78%	79%	78%	0.6

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test increased from 23% in 2002 to 30% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4th graders was 1.2 percentage points per year.

¹Averages are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table SC-10. Percentage of Grade 4 Students by Demographic Subgroup Scoring at the Advanced, Proficient and Above, and Basic and Above Levels in Mathematics

Subgroup	Reporting Year							Average Yearly Percentage Point Gain ¹
	2002	2003	2004	2005	2006	2007	2008	
All tested students								
Advanced	15%	14%	14%	14%	18%	20%	21%	0.9
Proficient and Above	36%	34%	36%	41%	42%	41%	42%	0.9
Basic and Above	75%	81%	80%	79%	78%	78%	79%	0.6
Low-income students								
Advanced	7%	6%	7%	6%	8%	9%	10%	0.6
Proficient and Above	22%	21%	22%	27%	27%	27%	27%	0.9
Basic and Above	65%	73%	72%	70%	69%	69%	70%	0.8
Students with disabilities³								
Advanced	6%	6%	5%	5%	7%	6%	6%	-0.3
Proficient and Above	17%	17%	16%	19%	18%	17%	16%	-1.0
Basic and Above	53%	62%	63%	56%	52%	49%	49%	-1.7
English language learners³								
Advanced	7%	4%	5%	6%	14%	14%	15%	0.6
Proficient and Above	18%	13%	16%	24%	36%	31%	33%	-1.3
Basic and Above	55%	52%	58%	63%	75%	68%	73%	-1.1
Female								
Advanced	15%	13%	14%	13%	17%	18%	20%	0.9
Proficient and Above	35%	34%	35%	40%	41%	40%	41%	1.0
Basic and Above	75%	81%	81%	79%	79%	79%	80%	0.8
Male								
Advanced	16%	15%	15%	16%	20%	21%	21%	0.9
Proficient and Above	37%	35%	36%	41%	43%	43%	42%	0.9
Basic and Above	76%	81%	80%	78%	78%	77%	78%	0.4

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test increased from 7% in 2002 to 10% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4th graders was 0.6 percentage points per year.

¹Averages are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups. Average yearly percentage point gains are based on 2006-2008 results.

Achievement by Subgroup — Gap Trends (Percentages Proficient)**Table SC-11. Subgroup Achievement Trends in Reading by Percentages Proficient**

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Grade 4				Grade 8				Grade 10							
	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group	
All tested students	02-08	34%	46%	2.0		02-08	27%	28%	0.2		04-08	61%	63%	0.4		
White	02-08	46%	58%	2.0		02-08	38%	39%	0.2		04-08	75%	76%	0.2		
African American	02-08	17%	28%	1.8	S	02-08	11%	13%	0.3	L	04-08	41%	43%	0.5	L	
Latino	02-08	25%	33%	1.3	S	02-08	20%	18%	-0.3	S	04-08	45%	51%	1.6	L	
Asian	02-08	50%	67%	2.9	L	02-08	47%	50%	0.5	L	04-08	71%	75%	1.0	L	
Native American	02-08	29%	41%	2.0 ²	E	02-08	23%	25%	0.3 ²	L	04-08	57%	59%	0.7 ²	L	
Not low-income	02-08	50%	63%	2.1		02-08	39%	42%	0.5		04-08	73%	76%	0.8		
Low-income	02-08	19%	31%	2.0	S	02-08	12%	14%	0.5	E	04-08	41%	45%	1.0	L	
Not disabled	06-08	45%	49%	2.2		06-08	27%	30%	1.7		06-08	63%	69%	3.1		
Students with disabilities ³	06-08	16%	16%	0.2	S	06-08	2%	3%	0.3	S	06-08	11%	15%	2.1	S	
Not ELL	06-08	42%	46%	1.9		06-08	25%	28%	1.5		06-08	57%	63%	3.4		
English language learners ³	06-08	25%	33%	4.0	L	06-08	8%	15%	3.5	L	06-08	36%	38%	0.9	S	
Female	02-08	38%	52%	2.2		02-08	31%	34%	0.4		04-08	66%	68%	0.5		
Male	02-08	29%	40%	1.8	S	02-08	23%	22%	-0.1	S	04-08	57%	57%	0.1	S	

Table reads: In 2002, 46% of white 4th graders and 17% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 58% of white 4th graders and 28% of African American 4th graders scored at the proficient level in reading. Between 2002 and 2008, the percentage proficient improved at an average rate of 2.0 percentage point per year for white students and 1.8 percentage points per year for African American students, indicating a smaller rate of

gain and a widening of the achievement gap for African American 4th graders.

¹Numbers in these columns are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table SC-12. Subgroup Achievement Trends in Mathematics by Percentages Proficient

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Grade 4				Grade 8				Grade 10						
	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group	Year Span	Starting PP	Ending PP	Average Annual Gain ¹	Gain Larger or Smaller Than Comparison Group
All tested students	02-08	36%	42%	0.9		02-08	19%	21%	0.3		04-08	55%	59%	0.9	
White	02-08	50%	56%	1.0		02-08	28%	30%	0.3		04-08	70%	73%	0.7	
African American	02-08	18%	22%	0.7	S	02-08	6%	8%	0.3	E	04-08	33%	38%	1.3	L
Latino	02-08	30%	31%	0.2	S	02-08	13%	14%	0.2	S	04-08	44%	50%	1.6	L
Asian	02-08	64%	67%	0.7	S	02-08	48%	47%	0.0	S	04-08	81%	82%	0.1	S
Native American	02-08	35%	40%	0.9 ²	S	02-08	15%	21%	1.1 ²	L	04-08	81%	56%	-6.2 ²	S
Not low-income	02-08	53%	60%	1.2		02-08	29%	32%	0.5		04-08	66%	71%	1.2	
Low-income	02-08	22%	27%	0.9	S	02-08	7%	10%	0.5	E	04-08	36%	43%	1.7	L
Not disabled	06-08	45%	46%	0.3		06-08	24%	23%	-0.6		06-08	59%	64%	3.0	
Students with disabilities ³	06-08	18%	16%	-1.0	S	06-08	3%	3%	-0.3	L	06-08	12%	14%	1.1	S
Not ELL	06-08	42%	42%	0.0		06-08	22%	21%	-0.6		06-08	53%	59%	3.2	
English language learners ³	06-08	36%	33%	-1.3	S	06-08	15%	14%	-0.8	S	06-08	43%	45%	1.1	S
Female	02-08	35%	41%	1.0		02-08	19%	20%	0.2		04-08	56%	59%	0.8	
Male	02-08	37%	42%	0.9	S	02-08	20%	22%	0.3	L	04-08	55%	59%	0.8	E

Table reads: In 2002, 50% of white 4th graders and 18% of African American 4th graders scored at the proficient level on the state math test. In 2008, 56% of white 4th graders and 22% of African American 4th graders scored at the proficient level in math. Between 2002 and 2008, the percentage proficient improved at an average rate of 1.0 percentage point per year for white students and 0.7 percentage points per year for African American students, indicating a smaller rate of gain and a widening of the achievement gap for African American 4th graders.

¹Numbers in these columns are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Achievement by Subgroup — Gap Trends (Mean Scale Scores)

Table SC-13. Achievement Gap Trends in Reading by Mean Scale Scores

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Statistic	Grade 4				Grade 8				Grade 10						
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	02-08	404.7	407.1	0.4					04-08	226.3	227.6	0.3			
	SD	02-08	12.2	14.5						04-08	23.6	22.4				
White	Mean SS	02-08	408.5	411.2	0.5					04-08	233.9	234.7	0.2			
	SD	02-08	11.8	13.7						04-08	21.3	20.8				
African American	Mean SS	02-08	399.7	401.2	0.3	S	02-08	797.0	798.5	0.3	L	04-08	215.5	217.6	0.5	L
	SD	02-08	10.7	13.3			02-08	13.1	12.8			04-08	21.9	20.3		
Latino	Mean SS	02-08	402.0	402.0	0.0	S	02-08	799.9	798.9	-0.2	S	04-08	217.5	220.1	0.6	L
	SD	02-08	12.2	15.3			02-08	14.8	15.8			04-08	24.8	23.7		
Asian	Mean SS	02-08	410.5	414.2	0.6	L	02-08	811.2	811.4	0.0	S	04-08	234.4	235.5	0.3	L
	SD	02-08	12.5	14.4			02-08	14.6	15.3			04-08	26.0	25.0		
Native American	Mean SS	02-08	403.9	403.1	-0.1 ²	S	02-08	801.5	800.9	-0.1 ²	S	04-08	225.3	224.3	-0.3 ²	S
	SD	02-08	13.7	14.2			02-08	12.6	13.4			04-08	21.9	24.6		
Not Low-income	Mean SS	02-08	409.6	412.8	0.5					04-08	232.7	234.8	0.5			
	SD	02-08	11.7	13.3						04-08	21.9	20.8				
Low-income	Mean SS	02-08	400.4	402.2	0.3	S	02-08	797.4	799.0	0.3	L	04-08	215.5	218.3	0.7	L
	SD	02-08	10.9	13.7			02-08	13.0	13.2			04-08	22.3	21.1		
Not disabled	Mean SS	06-08	408.3	408.8	0.2					06-08	229.0	231.3	1.1			
	SD	06-08	12.8	13.3						06-08	20.1	19.8				
Students with disabilities ³	Mean SS	06-08	396.1	393.4	-1.4	S	06-08	788.7	788.1	-0.3	S	06-08	195.2	199.2	2.0	L
	SD	06-08	13.7	16.1			06-08	13.2	13.4			06-08	21.9	21.4		
Not ELLs	Mean SS	06-08	407.2	407.4	0.1					06-08	225.1	228.2	1.5			
	SD	06-08	13.3	14.4						06-08	23.0	22.2				
English language learners ³	Mean SS	06-08	400.8	401.6	0.4	L	06-08	794.9	796.6	0.8	L	06-08	213.8	213.5	-0.1	S
	SD	06-08	14.7	15.8			06-08	16.6	16.1			06-08	25.9	23.9		
Female	Mean SS	02-08	406.4	409.4	0.5					04-08	229.4	230.7	0.3			
	SD	02-08	11.9	13.9						04-08	22.1	21.4				

Subgroup	Statistic	Grade 4					Grade 8					Grade 10				
		Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) ¹	Gain Larger or Smaller than Comparison Group
Male	Mean SS	02-08	403.0	404.8	0.3	S	02-08	801.5	801.7	0.0	S	04-08	223.4	224.4	0.2	S
	SD	02-08	12.2	14.7			02-08	14.4	14.5			04-08	24.5	23.1		

Table reads: In 2002, the mean scale score on the state 4th grade reading test was 408.5 for white students and 399.7 for African American students. In 2008, the mean scale score in 4th grade reading was 411.2 for white students and 401.2 for African American students. Between 2002 and 2008, the mean scale score improved at an average yearly rate of 0.5 points for white students and 0.3 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The PACT (grades 3-8) is scored on a scale such that the mean is 100 * grade level (e.g., mean for grade 4 is 400) and the standard deviation is 16. The HSAP (grade 10) is scored on a scale of 100-320 (the passing score is set at 200 with a standard deviation of 25).

¹Numbers in these columns are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table SC-14. Subgroup Achievement Trends in Mathematics by Mean Scale Scores

NOTE: L = Larger gain than comparison group. S = Smaller gain than comparison group. E = Equal gain to comparison group.

If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

Subgroup	Statistic	Grade 4					Grade 8					Grade 10						
		Year Span	Starting Year	Ending Year	Average Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Scale Score) ¹	Gain Larger or Smaller than Comparison Group		
All tested students	Mean SS	02-08	409.3	411.8	0.4													
	SD	02-08	16.3	16.7														
White	Mean SS	02-08	414.8	417.4	0.4													
	SD	02-08	15.0	15.4														
African American	Mean SS	02-08	401.8	403.8	0.3	S	02-08	798.2	801.1	0.5	L	04-08	210.3	213.3	0.8	L		
	SD	02-08	14.8	15.2			02-08	12.2	10.7			04-08	21.6	21.9				
Latino	Mean SS	02-08	407.0	407.9	0.1	S	02-08	802.0	803.7	0.3	L	04-08	217.5	219.1	0.4	L		
	SD	02-08	16.1	16.0			02-08	13.3	11.8			04-08	22.5	24.1				
Asian	Mean SS	02-08	419.7	422.0	0.4	S	02-08	816.1	816.1	0.0	S	04-08	244.4	243.2	-0.3	S		
	SD	02-08	16.2	15.8			02-08	14.7	13.4			04-08	31.1	27.4				
Native American	Mean SS	02-08	408.3	408.8	0.1 ²	S	02-08	803.4	803.7	0.1 ²	S	04-08	224.5	224.2	-0.1 ²	S		
	SD	02-08	16.5	16.5			02-08	12.2	12.6			04-08	28.6	27.0				
Not Low-income	Mean SS	02-08	415.7	418.8	0.5													
	SD	02-08	15.2	15.2														
Low-income	Mean SS	02-08	403.6	406.1	0.4	S	02-08	798.9	802.1	0.5	L	04-08	211.5	215.2	0.9	L		
	SD	02-08	15.0	15.7			02-08	12.4	11.2			04-08	22.6	22.9				
Not disabled	Mean SS	06-08	413.1	413.9	0.4													
	SD	06-08	15.2	15.7														
Students with disabilities ³	Mean SS	06-08	400.3	398.5	-0.9	S	06-08	794.6	795.2	0.3	L	06-08	193.1	194.7	0.8	L		
	SD	06-08	16.5	17.0			06-08	10.5	10.1			06-08	21.8	22.5				
Not ELLs	Mean SS	06-08	411.6	412.0	0.2													
	SD	06-08	15.9	16.7														
English language learners ³	Mean SS	06-08	405.6	408.3	1.4	L	06-08	801.2	803.1	1.0	L	06-08	218.6	216.8	-0.9	S		
	SD	06-08	16.6	16.6			06-08	13.7	12.2			06-08	27.0	24.2				
Female	Mean SS	02-08	409.1	411.9	0.5						02-08	804.8	806.5	0.3				

Subgroup	Statistic	Grade 4				Grade 8				Grade 10						
		Year Span	Starting Year	Ending Year	Average Gain Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain Scale Score) ¹	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain Scale Score) ¹	Gain Larger or Smaller than Comparison Group
	SD	02-08	16.0	16.2			02-08	13.7	12.2			04-08	24.6	24.2		
Male	Mean SS	02-08	409.6	411.8	0.4	S	02-08	804.7	806.7	0.3	L	04-08	223.4	224.3	0.3	S
	SD	02-08	16.6	17.2			02-08	14.6	13.1			04-08	28.6	26.5		

Table reads: In 2002, the mean scale score on the state 4th grade math test was 414.8 for white students and 401.8 for African American students. In 2008, the mean scale score in 4th grade math was 417.4 for white students and 403.8 for African American students. Between 2002 and 2008, the mean scale score improved at an average yearly rate of 0.4 points for white students and 0.3 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The PACT (grades 3-8) is scored on a scale such that the mean is 100 * grade level (e.g., mean for grade 4 is 400) and the standard deviation is 16. The HSAP (grade 10) is scored on a scale of 100-320 (the passing score is set at 200 with a standard deviation of 25).

¹Numbers in these columns are subject to rounding error.

²The number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

³Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table SC-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4				Grade 8				Grade 10						
		Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year	Year Span	# of Test-Takers Start Year	# of Test-Takers End Year	Change in # of Test-Takers Over Time	% of Test-Takers in Subgroup in End Year
All tested students	Reading	02-08	49,845	50,234	0.8%	100.0%	02-08	48,112	50,395	4.7%	100.0%	04-08	43,779	46,814	6.9%	100.0%
	Math	02-08	50,854	51,806	1.9%	100.0%	02-08	48,263	50,654	5.0%	100.0%	04-08	43,629	47,409	8.7%	100.0%
White	Reading	02-08	27,427	27,537	0.4%	54.8%	02-08	27,523	27,483	-0.1%	54.5%	04-08	25,008	26,077	4.3%	55.7%
	Math	02-08	27,944	28,201	0.9%	54.4%	02-08	27,579	27,559	-0.1%	54.4%	04-08	24,876	26,214	5.4%	55.3%
African American	Reading	02-08	20,589	18,040	-12.4%	35.9%	02-08	19,013	19,282	1.4%	38.3%	04-08	16,626	17,705	6.5%	37.8%
	Math	02-08	21,008	18,754	-10.7%	36.2%	02-08	19,092	19,372	1.5%	38.2%	04-08	16,404	18,124	10.5%	38.2%
Latino	Reading	02-08	944	2,665	182.3%	5.3%	02-08	726	2,116	191.5%	4.2%	04-08	880	1,704	93.6%	3.6%
	Math	02-08	962	2,789	189.9%	5.4%	02-08	734	2,176	196.5%	4.3%	04-08	870	1,731	99.0%	3.7%
Asian	Reading	02-08	436	586	34.4%	1.2%	02-08	438	577	31.7%	1.1%	04-08	493	622	26.2%	1.3%
	Math	02-08	449	603	34.3%	1.2%	02-08	440	595	35.2%	1.2%	04-08	493	620	25.8%	1.3%
Native American	Reading	02-08	118	112	-5.1%	0.2%	02-08	95	94	-1.1%	0.2%	04-08	76	88	15.8%	0.2%
	Math	02-08	121	119	-1.7%	0.2%	02-08	96	95	-1.0%	0.2%	04-08	77	89	15.6%	0.2%
Low-income	Reading	02-08	26,363	27,231	3.3%	54.2%	02-08	21,222	25,269	19.1%	50.1%	04-08	16,217	20,319	25.3%	43.4%
	Math	02-08	27,051	28,461	5.2%	54.9%	02-08	21,349	25,469	19.3%	50.3%	04-08	16,062	20,682	28.8%	43.6%
Students w/ disabilities	Reading	06-08	5,248	5,543	5.6%	11.0%	06-08	4,228	4,467	5.7%	8.9%	06-08	5,379	5,341	-0.7%	11.4%
	Math	06-08	6,599	6,924	4.9%	13.4%	06-08	4,595	4,638	0.9%	9.2%	06-08	5,499	5,454	-0.8%	11.5%
English language learners	Reading	06-08	1,921	2,522	31.3%	5.0%	06-08	1,356	1,650	21.7%	3.3%	06-08	983	1,175	19.5%	2.5%
	Math	06-08	2,137	2,672	25.0%	5.2%	06-08	1,498	1,741	16.2%	3.4%	06-08	978	1,187	21.4%	2.5%
Female	Reading	02-08	24,994	24,740	-1.0%	49.2%	02-08	24,447	25,000	2.3%	49.6%	04-08	22,236	24,108	8.4%	51.5%
	Math	02-08	25,208	25,251	0.2%	48.7%	02-08	24,428	25,063	2.6%	49.5%	04-08	22,075	24,468	10.8%	51.6%
Male	Reading	02-08	24,601	25,434	3.4%	50.6%	02-08	23,385	25,307	8.2%	50.2%	04-08	21,083	22,685	7.6%	48.5%
	Math	02-08	25,349	26,491	4.5%	51.1%	02-08	23,547	25,499	8.3%	50.3%	04-08	20,886	22,920	9.7%	48.3%

Table reads: In 2002, 27,427 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had risen to 27,537 students, an increase of 0.4%. In 2008, the white subgroup made up 54.8% of the 50,234 4th graders taking the reading test that year.

Note: **Bold** type indicates that the number of students tested in this subgroup at this grade level was fewer than 500 in 2008 or the most recent year with available data.

Key Terms

Percentage proficient (and above) — The percentage of students in a group who score at and above the cut score for “proficient” performance on the state test used to determine progress under NCLB. The Act requires states to report student test performance in terms of at least three achievement levels: basic, proficient, and advanced. Adequate yearly progress determinations are based on the percentage of students scoring at the proficient level and above.

Percentage basic (and above) — The percentage of students in a group who score at and above the cut score for “basic” performance on the state test used to determine progress under NCLB.

Percentage advanced — The percentage of students in a group who reach or exceed the cut score for “advanced” performance on the state test used to determine progress under NCLB.

Moderate-to-large gain — For the percentage basic, proficient, or advanced, an average gain of 1 or more percentage points per year. For effect size, an average gain of 0.02 or greater per year.

Slight gain — For the percentage basic, proficient, or advanced, an average gain of less than 1 percentage point per year. For effect size, an average gain of less than 0.02 per year.

Moderate-to-large decline — For the percentage basic, proficient, or advanced, an average decline of 1 or more percentage points per year. For effect size, an average decline of 0.02 or greater per year.

Slight decline — For the percentage basic, proficient, or advanced, an average decline of less than 1 percentage points per year. For effect size, an average decline of less than 0.02 per year.

Effect size — A statistical tool that conveys the amount of difference between test results using a common unit of measurement which does not depend on the scoring scale for a particular test.

Accumulated annual effect size — The cumulative gain in effect size over a range of years.

Mean scale score — The arithmetical average of a group of test scores, expressed on a common scale for a particular state’s test. The mean is calculated by adding the scores and dividing the sum by the number of scores.

Standard deviation — A measure of how much test scores tend to deviate from the mean—in other words, how spread out or bunched together test scores are. If students’ scores are bunched together, with many scores close to the mean, then the standard deviation will be small. If scores are spread out, with many students scoring at the high or low ends of the scale, then the standard deviation will be large.

Cautions and Explanations

Different labels for achievement levels — For consistency, all of the state profiles developed for this report use a common set of labels (basic, proficient, and advanced) for the main achievement levels required by NCLB. In practice, however, some states may use different labels, such as “meets standard” instead of proficient, and some states have established additional achievement levels beyond those required by NCLB.

Different names for subgroups — For the sake of consistency and ease of data tabulation, all of the state profiles developed for this report use a common set of names for the major student subgroups. In practice, however, states use various names for subgroups that may differ from those used here (such as using “Hispanic” instead of “Latino,” or “special education students” instead of “students with disabilities”). Moreover, a few states separately track the performance of subgroups not included in the analyses for this report.

Special caution for students with disabilities and English language learners — Trends for students with disabilities and English language learners should be interpreted with caution because changes in federal guidance and state accountability plans may have altered which students in these subgroups are tested for accountability purposes, how they are tested, and when their test scores are counted as proficient under NCLB. These factors could affect the year-to-year comparability of test results.

Inclusion of former English language learners — In many states, the subgroup of English language learners (also known as limited English proficient students) includes students who were formerly English language learners but who have achieved English language proficiency or fluency in the last two years. Federal NCLB regulations permit states to include these formerly ELL students (sometimes referred to as “redesignated fluent English proficient” students) in the ELL subgroup for up to two years for purposes of NCLB accountability.

Limitations of percentage proficient measure — The percentage proficient, the main gauge of student performance under NCLB, can be easily understood and gives a snapshot of how many students have met their state’s performance expectations. But it also has several limitations as a measure of student achievement. Users of percentage proficient data should keep in mind these limitations, particularly the following:

- * “Proficient” means different things across different states. States vary widely in curriculum, learning expectations, and tests, and state tests differ considerably in their difficulty and cut scores for proficient performance.
- * Although this study has taken steps to avoid comparing test data where there have been “breaks” in comparability resulting from new tests, changes in content standards, revised cut scores, or other major changes in testing programs, the year-to-year comparability of test results in the same state may still be affected by less obvious policy and demographic changes.
- * Changes in student performance may occur that are not reflected in percentage proficient data, such as an increase in the number of students reaching performance levels below and above proficient (such as the basic or advanced levels).
- * The size of the achievement gaps between various subgroups depends in part on where a state sets its cut score for proficiency. For example, if a proficiency cut score is set so high that almost nobody reaches it or so low that almost everyone reaches it, there will be little apparent achievement gap. By contrast, if the cut score is closer to the mean test score, the gaps between subgroups will be more apparent.

Difficulty of attributing causes — Although the tables above show trends in test scores since the enactment of NCLB, one cannot assume that these trends have occurred *because of* NCLB. It is always difficult to determine a cause-and-effect relationship between test score trends and any specific education policy or program due to the many federal, state, and local reforms undertaken in recent years and due to the lack of an appropriate “control” group of students not affected by NCLB.